CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-73

NPDES NO. CA0037796

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF PINOLE
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, finds that:

1. The Regional Board on August 20, 1974, adopted Order No. 74-82 (NPDES Permit No. CA0037796) prescribing waste discharge requirements and compliance time schedules for the City of Pinole (hereinafter called the discharger).

2. The Board on August 19, 1975, adopted Order 75-53 amending Order 74-82 by revising requirements and time schedules.

3. The discharger submitted a Report of Waste Discharge (NPDES Standard Form A) dated February 24, 1977.

4. The discharger currently discharges about 1.1 mgd of domestic waste containing pollutants into San Pablo Bay, a water of the United States, at the shoreline near the treatment plant. The discharge can affect viable shellfish beds in San Pablo Bay. The plant provides secondary treatment for wastewater from the City of Pinole and the town of Hercules and has a design capacity of 2.0 million gallons per day (mgd).

5. The discharger has recently completed planning and design studies to construct wastewater facilities needed to comply with Order 74-82 as amended. Principal facilities consist of an effluent conveyance line from Pinole to Rodeo and an outfall to deep waters of San Pablo Bay to be jointly used by Pinole, Hercules and Rodeo.

6. The following environmental documents relating to the proposed facilities have been prepared in accordance with the requirements of the California Environmental Quality Act:

   February 1976 Draft EIR - Western Contra Costa County Wastewater Management Program

   January 1977 Supplemental EIR - Western Contra Costa Wastewater Management Program

   April 1977 Subsequent EIR - Pinole Facilities (including Hercules)

   June 1977 Final EIR - Pinole Facilities (including Hercules)

7. These documents concluded that the project will have the following significant impacts on the environment:

a. Beneficial impacts on shellfish growing areas by the elimination of shoreline discharges of municipal effluent.

b. Potential long term adverse impacts, which have not as yet been quantified, related to continuation of discharge of low concentrations of toxicants to Bay waters.

8. The current NPDES permit sets limits on the concentrations of metal toxicants and chlorinated hydrocarbons discharged. These limits are intended to protect aquatic organisms from adverse effects due to long term exposure.

9. The Board in April 1975 adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Basin Plan contains effluent limitations, receiving water objectives and discharge prohibitions that regulate discharge to San Pablo Bay.

10. The beneficial uses of San Pablo Bay and contiguous water bodies are:

a. Water contact recreation
b. Non-contact water recreation
c. Navigation
d. Open commercial and sport fishing
e. Wildlife habitat
f. Fish spawning and migration
g. Preservation of rare and endangered species
h. Shellfishing
i. Industrial uses

11. Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 208b, 301, 302, 303d, 304, and 307 of the Federal Water Pollution Control Act are applicable to the discharge.

12. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements.

13. The Board in a public meeting heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, the City of Pinole, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The discharge of waste into the joint interceptor-outfall in excess of the following limits is prohibited:

Constituent	Units	30-Day Average	7-Day Average	Daily Maximum
a. Settleable Matter	ml/l-hr	0.1		0.2
b. BOD	mg/l	30	45	60
	kg/day	227		682
c. Suspended Solids	mg/l	30	45	60
	kg/day	227		682
d. Oil & Grease	mg/l	10		20
	kg/day	75.8		227
e. Chlorine Residual	mg/l			0.0

2. The arithmetic mean of the values for BOD and Suspended Solids effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times, during the same period. (85 percent removal)

3. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated: (a)

Constituent	Unit of Measurement	50% of time	10% of time
Arsenic	mg/l (kg/day)	0.01 (0.0756)	0.02 (0.227)
Cadmium	mg/l (kg/day)	0.02 (0.151)	0.03 (0.341)
Total Chromium	mg/l (kg/day)	0.005 (0.0378)	0.01 (0.114)
Copper	mg/l (kg/day)	0.2 (1.51)	0.3 (3.41)
Lead	mg/l (kg/day)	0.1 (0.756)	0.2 (2.27)
Mercury	mg/l (kg/day)	0.001 (0.00756)	0.002 (0.0227)
Nickel	mg/l (kg/day)	0.1 (0.756)	0.2 (2.27)
Silver	mg/l (kg/day)	0.02 (0.151)	0.04 (0.455)
Zinc	mg/l (kg/day)	0.3 (2.27)	0.5 (5.69)
Cyanide	mg/l (kg/day)	0.1 (0.756)	0.2 (2.27)
Phenolic Compounds	mg/l (kg/day)	0.5 (3.78)	1.0 (11.4)
Total Identifiable Chlorinated Hydrocarbons	mg/l (kg/day) [(b)]	0.002 (0.0151)	0.004 (.0455)

[(a)] These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

[(b)] Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

4. The total coliform bacteria for a median of five consecutive effluent samples shall not exceed 240 MPN per 100 ml. Any single sample shall not exceed 1,100 MPN per 100 ml when verified by a repeat sample taken within 48 hours.

5. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.

6. The survival of test fishes in 96-hour bioassays of the effluent shall achieve a 90-percentile value of not less than 50% survival for 10 consecutive samples.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the state at any place.

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum.
c.	pH	Variation from natural ambient pH by more than 0.2 pH units.
d.	Un-dissociated NH_4OH	0.025 mg/l - annual median; .4 mg/l maximum.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Discharge Prohibitions

1. The discharge of waste at any point at which the wastewater does not receive an initial dilution of at least 45:1 is prohibited.

2. There shall be no bypass or overflow of untreated wastewater to waters of the State, either at the plant or from the collection system.

3. The average dry weather flow shall not exceed 2.0 mgd. Average shall be determined over three consecutive months each year.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.

2. All requirements of this Order are effective upon adoption.

3. This permit shall be modified or, alternatively, revoked and reissued as soon as practicable to incorporate an approved publicly owned treatment work (POTW) pretreatment program or a compliance schedule for the development of a POTW pretreatment program as required under Section 402(b)(8) of the Clean Water Act and implementating regulations or by the requirements of the approved state pretreatment program as appropriate.

4. The discharger shall review and update annually its contingency plan as required by Regional Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

5. This Board's Orders 74-82 and 75-53 are hereby rescinded.

6. This Order includes all items of the attached "Standard Provisions, Reporting Requirements, and Definitions" dated April 1977 except A.16.

7. This Order expires on May 1, 1984, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

8. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 19, 1979.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions & Reporting Requirements, April 1977
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

City of Pinole

NPDES NO. CA 0037796

ORDER NO. 79-73

CONSISTS OF

PART A, dated January 1978

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES AND OBSERVATIONS

A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D)
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.
E-001-S	At any point in the treatment and disposal facilities following dechlorination.

C. LAND OBSERVATIONS

Station	Description
P-1 through P-8	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the locations of these stations will accompany each report.)

D. OVERFLOWS AND BYPASSES

Station	Description
O-1 through O-"n"	Bypass or overflows from manholes, pump stations or collection system.

Note: Initial SMP report to include map and description of each known bypass or overflow location.

Reporting - Shall be submitted monthly and include date, time, and period of each overflow or bypass.

E. MISCELLANEOUS REPORTING

1. During the wet weather season (November-March), daily minimum, maximum and total flow from Hercules shall be reported.

II. SCHEDULE OF SAMPLING MEASUREMENTS AND ANALYSIS

The schedule of sampling, measurements and analysis shall be that given in Table I.

III. MODIFICATIONS TO "PART A," DATED JANUARY 1978

A. The following paragraphs of Part A are excluded from the Self-Monitoring Program C.3, C.4, C.5.d, D3.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 79-73.

2. Has been ordered by the Executive Officer on date indicated below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Effective Date _____

Attachments:
Table I
Form A

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1)

Sampling Station	A-001		E-001		E-001-D		E-001-S		P,L	O			
TYPE OF SAMPLE	G	C-24	G	C-24	Cont	G	Cont	C-24	O	O			
Flow Rate (mgd)		D			D								
BOD, 5-day, 20° C, or COD (mg/l & kg/day)		3/W		3/W									
Chlorine Residual & Dosage (mg/l & kg/day)					Cont	or 2H							
Settleable Matter (ml/1-hr. & cu. ft./day)			D										
Total Suspended Matter (mg/l & kg/day)		3/W		3/W									
Oil & Grease (mg/l & kg/day)	(2) W		(2) W										
Coliform (Total) (MPN/100 ml) per req't						5/W							
Fish Toxicity, 96-hr. TL_{50} % Survival in undiluted waste								M					
Ammonia Nitrogen (mg/l & kg/day)				M									
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)				M									
pH (units)			Cont										
Dissolved Oxygen (mg/l and % Saturation)			D										
Temperature (°C)			D										
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)			W										
Arsenic (mg/l & kg/day)				Y									
Cadmium (mg/l & kg/day)				Y									
Chromium, Total (mg/l & kg/day)				Y									
Copper (mg/l & kg/day)				Y									
Cyanide (mg/l & kg/day)				Y									
Silver (mg/l & kg/day				Y									
Lead (mg/l & kg/day)				Y									

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001		E-001-D		E-001-S		P	O			
TYPE OF SAMPLE	G	C-24	G	C-24	Cont	G	Cont	C-24	O	O			
Mercury (mg/l & kg/day)				Y									
Nickel (mg/l & kg/day)				Y									
Zinc (mg/l & kg/day)				Y									
PHENOLIC COMPOUNDS (mg/l & kg/day)				Y									
All Applicable Standard Observations			D						W	E			
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)				Y									
Un-ionized ammonia as N (mg/l)				M									
Chlorine residual (3) (mg/l)							Cont	or 2H					

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour

Cont = continuous sampling

O = observation

TYPES OF STATIONS

A = treatment facility influent stations
E = waste effluent stations

P = treatment facilities perimeter stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES FOR TABLE I

(1) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD, total suspended solids, oil and grease.
2. Grab sample for Coliform (Total and Fecal), Settleable matter,

(2) Oil and grease sampling shall consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container. A composite shall be made using equal volumes of each grab. Each glass container used for sample collection or mixing shall be throughly rinsed with solvent as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.

(3) Chlorine residual following dechlorination shall be reported using the attached form A or equivalent.